



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/440,260	11/15/1999	ARTHUR JOST	GEN-067	2733

43471 7590 06/28/2006

GENERAL INSTRUMENT CORPORATION DBA THE CONNECTED
HOME SOLUTIONS BUSINESS OF MOTOROLA, INC.
101 TOURNAMENT DRIVE
HORSHAM, PA 19044

EXAMINER

KOENIG, ANDREW Y

ART UNIT PAPER NUMBER

2623

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/440,260

Applicant(s)

JOST ET AL.

Examiner

Andrew Y. Koenig

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,8-11,13,14,17-20,22-25 and 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,8-11,13,14,17-20,22-25 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 05 April 2006 have been fully considered but they are not persuasive.

The applicant argues that both the assertions of "Corrigan teaches ... transmit[ting] a message without a request message being first sent from the system controller" and the "control unit [110] is merely transmitting information and does not initiate the process." The applicant then discusses that the control unit first transmits operations parameters, and only after the subscriber unit has the operation parameters can it register on the system (see last paragraph of pg. 2, and first paragraph of pg. 3 of remarks). Consequently, the applicant concludes that the subscriber unit 130 could not register on the system without the control unit 110. Whereas the examiner recognizes this distinction, the claims require that a registration request is transmitted from a set top terminal "without a request message being sent first from the system controller." The examiner notes that the relied upon portion of Corrigan is operational parameters and is not a request message. The examiner agrees with the applicant in that subscriber 130 could not register on the system without the control unit, but such limitation is not recited. Providing operation parameters enables a set top terminal to communicate upstream, but does not request information.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention

where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, the applicant argues that there is no motivation to combine the systems and methods of Caporizzo and Corrigan, because Caporizzo addresses bit error rate data and Corrigan describes an initialization process for a subscriber unit. The examiner disagrees; Caporizzo is directed to using the known cable network topology and analysis of bit-error rates to diagnose and isolate problems, and Corrigan is directed to using the cable network topology for managing the subscriber units, wherein the subscriber units can identify themselves to the system. One of ordinary skill in the art would readily recognize the benefit of having the initiation process executed by the set top terminal in order to enable devices to be added without supervision thereby reducing the overall support costs of the provider.

The applicant further argues that the Examiner's proposed combination involves replacing Caporizzo's bit error rate (BER) message with Corrigan's message, and thus the combination destroys the purpose of Caporizzo, which is to detect and report bit error rates. The examiner disagrees; there is nothing in either reference that would preclude the mere modification of altering of the time of transmission of Caporizzo as taught by Corrigan in order to report bit error rates when a new device is added to the system, consequently, the purpose of Caporizzo is not destroyed as argued.

The applicant argues that whereas both Capporizzo and Corrigan are applied in the cable television network, they are applied to different issues in a complex field. The examiner disagrees; as the bit error reporting of Caporizzo could be improved by enabling the device report information without requiring a request from the headend such as taught in Corrigan.

Regarding claim 25, the applicant argues that how a set top terminal gets into the network is immaterial as to how the terminal is performing so as to reduce bit error rates. Whereas this may be true, the same argument can be applied to the instant invention in that how a set top terminal gets into the network is immaterial as to how the terminal are located within the system. Regardless, the examiner disagrees; as established in the prior art, it is known in art to purchase devices from a retail outlet for the benefit of saving money in the long term by not renting the unit from a provider.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 8-11, 13, 17-20, 22-24, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,574,495 to Caporizzo in view of U.S. Patent 6,202,088 to Corrigan et al. (Corrigan).

Regarding claims 1, 11, and 20, Caporizzo teaches a cable television system which assesses the noise in the channels and notifies the headend of problems (abstract). Caporizzo teaches a headend (claimed system controller), a population of terminals, and a plurality of upstream and downstream plants (fig. 1). Furthermore, the system of Caporizzo can locate set top terminals within a system by maintaining a system topology of devices (col. 6, ll. 4-13). Caporizzo teaches sending a message containing bit error rate (BER) information to the headend (col. 5, ll. 37-39), which reads on sending a first message to the system controller from a set top terminal. Furthermore, by using the CATV network topology, the system can determine the upstream plant and the downstream plant associated with the terminal (col. 6, ll. 4-13). The examiner notes that the identification is 217784, where 2 is the trunk number, 1 is the line extender and 7784 is the set top terminal. Accordingly, the location of the set top terminal within the system comprises an identification of the upstream and downstream plants.

Further, Caporizzo is silent on a terminal transmitting data without a request message being first sent from the system controller. Corrigan teaches registering a new subscriber unit to the control unit (110) (col. 2, ll. 39-42, col. 5, ll. 4-11, col. 5, ll. 37-48, col. 7, ll. 5-16, see also figure 11) (claimed registration request), wherein the new subscriber (ergo terminal) transmits a message without a request message being first sent from the system controller, in that the data from the controller is data concerning communication parameters and not a request. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo

by transmitting a message to the headend during initialization as taught by Corrigan in order to identify the user device at the headend and determine the appropriate services thereby efficiently using resources (Corrigan: col. 1, ll. 7-15) and enabling the system to be managed more efficiently without disruptions of service (Corrigan: col. 1, ll. 36-40).

Further regarding claim 11, Caporizzo is silent on a location of which terminal has not been previously obtained by the system controller. Corrigan teaches registering a new subscriber unit to the control unit (110) (col. 2, ll. 39-42, col. 7, ll. 5-16, see also figure 11), wherein the new subscriber (e.g. terminal) has not communicated with the system controller previously by the system controller. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by identifying the location of terminal that has not been previously obtained by the system controller as taught by Corrigan in order to identify the user device at the headend and determine the appropriate services thereby efficiently using resources (Corrigan: col. 1, ll. 7-15) and enabling the system to be managed more efficiently without disruptions of service (Corrigan: col. 1, ll. 36-40).

Further regarding claim 20, Caporizzo is silent on wherein a location of a set top within the system was previously unknown. Corrigan teaches registering a new subscriber unit to the control unit (110) (col. 2, ll. 39-42, col. 7, ll. 5-16, see also figure 11), wherein the location within the system was previously unknown. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by on locating a device wherein a location of the device within the system was previously unknown as taught by Corrigan in order to identify the

user device at the headend and determine the appropriate services thereby efficiently using resources (Corrigan: col. 1, ll. 7-15) and enabling the system to be managed more efficiently without disruptions of service (Corrigan: col. 1, ll. 36-40).

Regarding claim 3, Caporizzo teaches authorizing access to specific services and channels (col. 3, ll. 3-5), which reads on assigning attributes for set top terminals. The examiner notes that by assigning characteristics to a particular set top terminal, the set top terminal has a location. Accordingly, Caporizzo teaches, "assigning attributes for said set top terminal based on said location of said set top terminal" as claimed. However, Caporizzo is silent on one or more different attributes assigned to terminals in different locations. Corrigan teaches plural subscriber units being assigned to groups based on geographic location (col. 3, ll. 41-57), wherein the control unit (110) sends operations parameters for the subscriber unit (130), such as frequency bandwidth parameters, security identification, system channel, and protocol parameters (col. 4, ll. 31-49). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by having one or more different attributes assigned to terminals in different locations as taught by Corrigan in order to provide a plurality of services to users in different locations, thereby enabling the system to remotely configure subscriber units for reducing costs (Corrigan: col. 3, ll. 4-17).

Regarding claims 13, and 22, Caporizzo teaches authorizing access to specific services and channels (col. 3, ll. 3-5), which reads on assigning attributes for set top terminals. The examiner notes that by assigning characteristics to a particular set top terminal, the set top terminal has a location. Accordingly, Caporizzo teaches,

“assigning attributes for said set top terminal based on said location of said set top terminal” as claimed.

Regarding claims 8 and 17, Caporizzo teaches a subscriber demand initiating the data accumulation procedure, which in turn transmits the first message (col. 5, ll. 5-8).

Regarding claims 9 and 18, Caporizzo teaches identifying a trunk and line extender along with the set top terminal in order to identify the a group of malfunctioning devices (col. 6, ll. 5-13).

Regarding claims 10 and 19, Caporizzo teaches using a phone line to send the information the headend (claimed controller) (col. 5, ll. 43-48). By completing this action, the system of Caporizzo clearly must call use a telephone network that in turn reads on the claimed upstream plant.

Regarding claims 23, Caporizzo teaches a set top terminal demanding when the terminal has been added to the system, but is silent on performing an action once connected to the network. Corrigan teaches that the subscriber unit (130) scans and locates the system broadcast channel containing operation parameters (col. 7, ll. 5-16), and sending information to the control unit (110) (col. 5, ll. 9-27). Therefore, it would have been obvious to one of ordinary skill in the art to modify Caporizzo by perform an action once connected to the network as taught by Corrigan in order to identify the device to the network without prior notice to the operator thereby enabling the system to efficiently add devices to the network and configure the network.

Regarding claim 24, Caporizzo teaches providing physical and logical topology information for the system based on the location information of the terminal (col. 6, 4-13).

Regarding claim 27, the combination of Caporizzo and Corrigan teaches the headend receiving a signal from a terminal and determining the upstream and downstream plants associated with the terminal (col. 5, ll. 37-39) and Caporizzo teaches a downstream plant associated with the upstream plant (col. 6, ll. 4-13).

4. Claims 4, 5, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,574,495 to Caporizzo and U.S. Patent 6,202,088 to Corrigan et al. (Corrigan) in view of U.S. Patent 6,463,588 to Jenkins et al. (Jenkins) and U.S. Patent 6,425,132 to Chappell.

Regarding claims 4 and 14, Caporizzo teaches associating attributes to the set top terminals, but is silent on associating attributes with each upstream and downstream plant. Jenkins teaches associating a status for end user devices in the downstream data path (col. 2, ll. 22-37, col. 2-3, ll. 56-6). In the upstream direction, Chappell teaches identifying a node, with a node identifier (col. 5-6, ll. 65-1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by associating attributes with both the downstream and upstream plants as taught by Jenkins and Chappell in order to analyze the network and improve the efficiency of the system.

Regarding claim 5, Caporizzo is silent on associating attributes for the terminal based on the upstream path. Official Notice is taken that associating attributes for the terminal based on the upstream path is well known. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by associating attributes based on the upstream path in order to adjust the power, timing and other transmission characteristics for the set top terminal thereby transmitting data more efficiently.

5. Claims 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,574,495 to Caporizzo and U.S. Patent 6,202,088 to Corrigan et al. (Corrigan) in view of U.S. Patent 5,563,883 to Cheng.

Regarding claims 6, Caporizzo teaches polling from both the headend or the set top terminal either simultaneously or to addressed terminals (col. 5, ll. 4-11). By polling a particular set top terminal, the terminal clearly has a location. However, Caporizzo is silent on teaching selecting terminals to minimize collisions. Cheng teaches grouping terminals in order to minimize collisions (col. 11, ll. 9-14). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by grouping terminals to minimize collisions as taught by Cheng in order to provide a more reliable upstream data path.

6. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,574,495 to Caporizzo and U.S. Patent 6,202,088 to Corrigan et al.

(Corrigan) in view of "All-format decoders and set-top boxes" to Henderson (hereinafter Henderson).

Regarding claim 25, Caporizzo is silent on purchasing a set top terminal. Henderson teaches purchasing a set top terminal (pg. 4, para. 1), which are clearly purchased at a retail outlet, given the broadest reasonable interpretation in the art of a commercial market for goods selling retail directed towards consumers in that consumers are able to purchase the receivers. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo to purchase a set top terminal through a retail outlet as taught by Henderson in order to enable a user to integrate a device into the network thereby gaining functionality and services available on the network.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2623

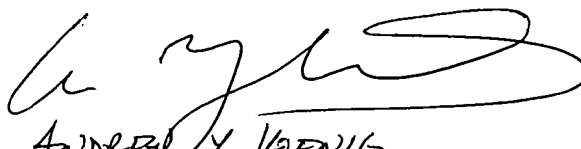
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Y. Koenig whose telephone number is (571) 272-7296. The examiner can normally be reached on M-Fr (8:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571)272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ayk



ANDREW Y KOENIG
AV 2623